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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 19

Application Number: 09/302,154
Filing Date: April 29, 1999
Appellant(s): PEDNAULT, EDWIN PETER DAWSON

Frederick E. Cooperrider
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 13 January 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the Appellant has failed to explain why the claims each group are believed to be separately patentable. As stated in MPEP § 1206, if an appealed ground of rejection applies to more than one claim and appellant considers the rejected claims to be separately patentable, 37 CFR 1.192(c)(7) requires appellant to state that the claims do not stand or fall together, and to present in the appropriate part or parts of the argument under 37 CFR 1.192(c)(8) the reasons why they are considered separately patentable. The absence of such a statement and argument is a concession by the applicant that, if the ground of rejection were sustained as to any one of the rejected claims, it will be equally applicable to all of them. 37 CFR 1.192(c)(7) is consistent with the practice of the Court of Appeals for the Federal Circuit indicated in

such cases as In re Young, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991); In re Nielson, 816 F.2d 1567, 2 USPQ2d 1525 (Fed. Cir. 1987); In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); and In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). 37 CFR 1.192(c)(7) requires the inclusion of reasons in order to avoid unsupported assertions of separate patentability. The reasons may be included in the appropriate portion of the "Argument" section of the brief.

Therefore claims 1-18 stand or fall together and claims 19-20 stand or fall together.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,970,464	APTE ET AL..	10-1999
5,692,107	DIMOUDIS ET AL.	11-1997

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Rejections - 35 USC § 102

1. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Apte et al. (5,970,464).

(A) As per claim 19, Apte discloses a method of at least one of managing and

providing consultation for financial decisions, said method comprising at least one of generating, transmitting, receiving, and forwarding a report executed by a computer, said computer having executed a program of instructions (Apte; col. 3, lines 2-5; note the kernel is software which may be written in C++, therefore are program instructions executable by the machine) to perform method steps for constructing segmentation-based models that satisfy constraints on the statistical properties of the segments, the methods steps comprising:

(1) presenting a collection of training data records comprising examples of input values that are available to the model together with the corresponding desired output value(s) that the model is intended to predict; (Apte; col. 3, lines 20-33 and col. 4, lines 17-27; the examiner interprets "data in data warehouse" as "input values that are available to the model" and "pure premium characteristics" as "desired output values that the model is intended to predict")

(2) based on said training data, automatically generating on said computer, a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternate training data segments and associated segment models; (Apte; col. 4, lines 33-40)

b) evaluating at least one generated segment to determine whether it satisfies at least one statistical constraint (Apte; col. 4, lines 28-33; the examiner interprets " actual pure premium" as a "statistical constraint.") ; and

c) selecting a final plurality of segment models and associated segments from among the alternates evaluated that satisfy at least one of said statistical constraints (Apte; col. 4, lines 33-36; The examiner interprets "fine tuning the eligibility criteria for the product, until the segments that that are dragging the overall costs down are satisfactorily removed" as "selecting a final plurality of segments that have satisfactory evaluations.")

(B) As per claim 20, Apte teaches wherein said model relates to an insurance risk model, said at least one statistical constraint comprises an actuarial credibility constraint, and said financial decision relates to at least one of a price structure for insurance policies and a policyholder profitability.

Claim Rejections - 35 USC § 103

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apte et al (5,970,464) in view of Simoudis et al. (5,692,107).

(A) As per claim 1, Apte discloses a computer implemented system comprising

program instructions executable by the machine (Apte; col. 3, lines 2-5; note the kernel is software which may be written in C++, therefore are program instructions executable by the machine) to perform method steps for constructing segmentation-based models that satisfy constraints on the statistical properties of the segments, the methods steps comprising:

(1) presenting a collection of training data records comprising examples of input values that are available to the model together with the corresponding desired output value(s) that the model is intended to predict; (Apte; col. 3, lines 20-33 and col. 4, lines 17-27; the examiner interprets "data in data warehouse" as "input values that are available to the model" and "pure premium characteristics" as "desired output values that the model is intended to predict")

(2) generating on the basis of the training data a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternate training data segments and associated segment models; (Apte; col. 4, lines 33-40)

b) evaluating at least one generated segment to determine whether it satisfies at least one statistical constraint (Apte; col. 4, lines

28-33; the examiner interprets " actual pure premium" as a "statistical constraint.") ; and

c) selecting a final plurality of segment models and associated segments from among the alternates evaluated that satisfy at least one of said statistical constraints (Apte; col. 4, lines 33-36; The examiner interprets "fine tuning the eligibility criteria for the product, until the segments that that are dragging the overall costs down are satisfactorily removed" as "selecting a final plurality of segments that have satisfactory evaluations.")

Apte fails to expressly disclose "a program storage device readable by a machine, tangibly embodying a program of instructions" in the preamble. However, this feature is old and well known in the art as evidenced by Simoudis's teachings with regards to a program storage device readable by a machine, tangibly embodying a program of instructions (Simoudis; col. 3, line 49-col. 4, line 15). It is respectfully submitted, that it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand Apte's computer-implemented method of underwriting profitability analysis to include this limitation, as taught by Simoudis, with the motivation of providing means for storage and retrieval of program data and instruction to be used at a later time.

(B) As per claim 2, Apte discloses a computer implemented system comprising program of instructions executable by the machine (Apte; col. 3, lines 2-5; note the kernel is software which may be written in C++, therefore are program of instructions executable by the

machine) to perform method steps for constructing segmentation-based models that satisfy constraints on the statistical properties of the segments, the methods steps comprising:

(1) presenting a collection of training data records comprising examples of input values that are available to the model together with the corresponding desired output value(s) that the model is intended to predict (Apte; col. 3, lines 20-33 and col. 4, lines 17-27; the examiner interprets "data in data warehouse" as "input values that are available to the model" and "pure premium characteristics" as "desired output values that the model is intended to predict");

(2) generating, on the basis of the training data a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternate training data segments and associated segment models using statistical constraints to guide the construction of the data segments in a closed-loop fashion so as to ensure that the resulting data segments satisfy the statistical constraints; (Apte; col. 4, lines 28-39; The examiner interprets "actual pure premiums" as a "statistical constraint." The

examiner also interprets the generating as being done in "a closed loop fashion," because the statistical constraint, "actual pure premium," is part of the eligibility criteria which is evaluated and then used to regulate the construction of potential segments (Apte; col. 4, lines 8-16)

b) selecting a final plurality of segment models and associated segments from among the alternates generated (Apte; col. 4, lines 33-36; The examiner interprets "fine tuning the eligibility criteria for the product, until the segments that that are dragging the overall costs down are satisfactorily removed" as "selecting a final plurality of segments from among the alternates generated.")

Apte fails to expressly disclose "a program storage device readable by a machine, tangibly embodying a program of instructions" in the preamble. However, this feature is old and well known in the art as evidenced by Simoudis's teachings with regards to a program storage device readable by a machine, tangibly embodying a program of instructions (Simoudis; col. 3, line 49-col. 4, line 15). It is respectfully submitted, that it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand Apte's computer-implemented method of underwriting profitability analysis to include this limitation, as taught by Simoudis, with the motivation of providing means for storage and retrieval of program data and instruction to be used at a later time.

(C) As per claim 3, Apte discloses a computer implemented system comprising program instructions executable by the machine (Apte; col. 3, lines 2-5 and col. 4, lines 17-27; note the kernel is software which may be written in C++, therefore are program instructions executable by the machine) to perform method steps for constructing segmentation-based models that satisfy constraints on the statistical properties of the segments, the methods steps comprising:

(1) presenting a collection of training data records comprising examples of input values that are available to the model together with the corresponding desired output value(s) that the model is intended to predict; (Apte; col. 3, lines 20-33 and col. 4, lines 17-27; the examiner interprets "data in data warehouse" as "input values that are available to the model" and "pure premium characteristics" as "desired output values that the model is intended to predict")

(2) generating, on the basis of the training data a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternate training data segments and associated segment models; (Apte; col. 4, lines 33-40)

b) adjusting the alternate pluralities so that the resulting data segments satisfy the statistical constraints (Apte; col. 4, lines 28-39; The examiner interprets "actual pure premiums" as a "statistical constraint" and "fine tuning" as a form of "adjusting")

Apte fails to expressly disclose "a program storage device readable by a machine, tangibly embodying a program of instructions" in the preamble. However, this feature is old and well known in the art as evidenced by Simoudis's teachings with regards to a program storage device readable by a machine, tangibly embodying a program of instructions (Simoudis; col. 3, line 49-col. 4, line 15). It is respectfully submitted, that it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand Apte's computer-implemented method of underwriting profitability analysis to include this limitation, as taught by Simoudis, with the motivation of providing means for storage and retrieval of program data and instruction to be used at a later time.

(D) As per claim 4, Apte discloses a computer implemented system comprising program instructions executable by the machine (Apte; col. 3, lines 2-5; note the kernel is software which may be written in C++, therefore are program instructions executable by the machine) to perform method steps for constructing segmentation-based models of insurance risks, the methods steps comprising:

(1) presenting a collection of training data comprising examples of historical policy and claims data; (Apte; col. 3, lines 6-19)

(2) generating on the basis of the training data a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternative pluralities of segment models; (Apte; col. 4, lines 33-40)

b) comparing said alternative pluralities of segment models using statistical likelihood scores based on statistic models of insurance risk, (Apte; col. 4, lines 28-33; The examiner interprets "estimated pure premiums" as forms of "statistical likelihood scores based on statistical models of insurance risk")

c) selecting a final plurality of segment models and associated segments from among the alternates generated so as to optimize aggregate statistical likelihood scores for the plurality (Apte; col. 4, lines 33-36; The examiner interprets "fine tuning the eligibility criteria for the product, until the segments that that are dragging the overall costs down are satisfactorily removed" as "selecting a final plurality of segments form

among the alternates generated as to optimize aggregate statistical likelihood scores for the plurality.")

Apte fails to expressly disclose "a program storage device readable by a machine, tangibly embodying a program of instructions" in the preamble and fails to expressly disclose the alternative pluralities of segment models are generated in one of a top-down fashion and a bottom-up fashion. However, this feature is old and well known in the art as evidenced by Simoudis's teachings with regards to a program storage device readable by a machine, tangibly embodying a program of instructions (Simoudis; col. 3, line 49-col. 4, line 15) and generating alternative pluralities of segment models in one of a top-down fashion and a bottom-up fashion (Simoudis; abstract). It is respectfully submitted, that it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand Apte's computer-implemented method of underwriting profitability analysis to include these limitations, as taught by Simoudis, with the motivation of creating reliable predictive models using data mining across multiple and diverse databases (Simoudis; col. 2, lines 1-3).

(E) As per claim 5, Apte teaches wherein said evaluating at least one generated segment to determine whether it satisfies at least one statistical constraint comprises:

performing a test whose outcome is not equivalent to a comparison between, on the one hand, the number of training records of at least one species of training records belonging to the segment and, on the other hand, a numerical quantity that may depend on the combination of species of training records being considered but that is otherwise constant for all generated segments that are evaluated (Apte; col. 4, lines 28-40; the examiner interprets the "what-if

scenario analysis" as a from of "test whose outcome is not equivalent to a comparison between, on the one hand, the number of training records of at least one species of training records belonging to the segment and, on the other hand, a numerical quantity that may depend on the combination of species of training records being considered but that is otherwise constant for all generated segments that are evaluated.")

(F) As per claims 6, 9, and 10, Apte teaches wherein said statistical constraint comprises at least one constraint on a statistical estimation error of the corresponding segment model (Apte; col. 3, line 60-col. 4, line 7).

(G) As per claim 7, Apte teaches wherein said model relates to an insurance risk model and said at least one statistical constraint comprises an actuarial credibility constraint (Apte; col. 1, lines 53-59, col. 3, lines 35-53, and col. 3, line 60-col. 4, line 7).

(H) As per claim 8, Apte teaches wherein each said generated segment is evaluated using a statistical constraint based on a threshold calculated for that generated segment on statistical properties of claim amounts in said generated segment (Apte; col. 3, lines 35-53 and col. 4, lines 28-47).

(I) As per claims 11-13, Apte teaches wherein said generating alternate training data segments and segment models comprises splitting larger data segments into smaller data segments (Apte; col. 4, lines 17-27).

(J) As per claim 14, Apte discloses an apparatus comprising:

(1) a receiver to receive a collection of training data records comprising examples of input values that are available to the model together with the corresponding desired output value(s) that the model is intended to predict; (Apte; col. 3, lines 20-33 and col. 4, lines 17-27; the examiner interprets "data in data warehouse" as "input values that are available to the model" and "pure premium characteristics" as "desired output values that the model is intended to predict")

(2) a calculator to generate, on the basis of the training data a plurality of segment models, that together comprise an overall model, wherein each segment model is associated with a specific segment of the training data (Apte; col. 4, lines 17-27), the step of generating comprising performing optimization steps comprising:

a) generating alternate training data segments and associated segment models; (Apte; col. 4, lines 33-40)

b) evaluating at least one generated segment to determine whether it satisfies at least one statistical constraint (Apte; col. 4, lines 28-33; the examiner interprets " actual pure premium" as a "statistical constraint.") ; and

c) selecting a final plurality of segment models and associated segments from among the alternates evaluated that satisfy said statistical constraints (Apte; col. 4, lines 33-36; The examiner interprets "fine tuning the eligibility criteria for the product, until the segments that that are dragging the overall costs down are satisfactorily removed" as "selecting a final plurality of segments that have satisfactory evaluations.")

(K) As per claim 15, Apte teaches wherein said model relates to an insurance risk model and said at least one statistical constraint comprises an actuarial credibility constraint (Apte; col. 1, lines 53-60, col. 3, line 60-col. 4, line 7, and col. 4, lines 28-40).

(L) Method claims 16-18 repeat the subject matter of system claims 1, 6, and 7, as a series of steps rather than a set of apparatus elements. As the underlying structure of claims 1, 6, and 7 has been shown to be fully disclosed by the teachings of Apte and Simoudis in the above rejections of claims 1, 6, and 7, it is readily apparent that the system disclosed by Apte and Simoudis include the steps to perform these functions. As such, these limitations are rejected for the same reasons given above for system claims 1, 6, and 7, and incorporated herein.

(11) Response to Argument

(A) On pages 4-5 of Appellant's brief, Appellant argued as best understood from the Examiner's discussion in the Advisory Action of record, the Examiner considers that Apte would inherently teach a medium containing computer instructions, thereby seemingly alleging that

Apte actually anticipates all claims 1-20 and that Simoudis is actually not even necessary, in reference to claims 1-20.

In response, it is respectfully noted that the Examiner never stated that Apte would inherently teach a medium containing instructions, in the Advisory Action of record or for that matter in any Office Action of record. The Examiner has not stated any feature of Appellant's claimed invention is inherent. In fact, it is respectfully submitted, that claims 1-18 were rejected under 35 U.S.C. § 103 specifically because in spite of Apte's invention being implemented on a computer, Apte failed to expressly teach a computer readable medium and the Examiner provided the Simoudis reference to show that such features are well-known in the art.

It appears that the Appellant's basis for such an assertion is the Examiner's following statements in the last Advisory Action of record: "in fact, as shown on pages 9 and 10 of Applicant's response, a "computer-implemented method" inherently possesses "means of storage and retrieval of program data and instruction to be used at a later time." As such, the Applicant even admits that the use of a computer-readable medium in a software operated system, such as Apte, is well within the reach of a skilled artisan." Therefore, it appears the Appellant has confused the Examiner's position with a claim made by the Appellant in a prior response by the Appellant. The Examiner had provided these statements made by the Appellant in response to Appellant's assertion the Simoudis changed the principle operation of Apte. The Examiner explained that if the Appellant believed that such a feature (i.e., computer-readable medium containing instruction) was inherent in Apte, it was contradictory to argue how combing the same feature as taught by Simoudis would change the principle operation of Apte.

(B) On pages 6-7 of Appellant's brief, Appellant argued that the Examiner has improperly imported into the plain meaning of the claims that the language recites a user's inputs or contribution, in reference to claims 1-20.

In response, it is first respectfully noted that the Appellant has not provided any limitations in claims 1-20 that limit the recited steps to be done electronically or automatically without any manual intervention. In fact the section of the MPEP cited by Appellant (§ 2111), directly addresses the issue at hand. The sections states "Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) (Claim 9 was directed to a process of analyzing data generated by mass spectrographic analysis of a gas. The process comprised selecting the data to be analyzed by subjecting the data to a mathematical manipulation. The examiner made rejections under 35 U.S.C. 101 and 102. In the 35 U.S.C. 102 rejection, the examiner explained that the claim was anticipated by a mental process augmented by pencil and paper markings. **The court agreed that the claim was not limited to using a machine to carry out the process since the claim did not explicitly set forth the machine.** The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also *In re Morris*, 127 F.3d 1048, 1054-55,

44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.").

As such, the Appellant is advocating the importation of subject matter from the specification into the claims. However, as explained above, this has been held to be impermissible and the claimed invention is not limited to the embodiment as suggested by Appellant because none any of the limitations in the claims suggest that manual intervention is not permitted. It is further respectfully noted, that the Appellant has also failed to provide any definitions for the terms in the claims of record that suggest that manual intervention is not permitted.

Furthermore, even if it is found that the claimed steps must be executed by software, Apte teaches that all the recited steps are indeed executed by software (Apte; col. 3, lines 20-42). It is respectfully noted that even though user intervention occurs in Apte, the computer system is the process that eventually executes all the recited steps electronically. For example, the Examiner cited col. 4, lines 33-36 as teaching the claimed step of "selecting a final plurality of segment and associated segments from among the alternatives evaluated that satisfy at least one of said statistical constraints." In the cited section of Apte, the user interactively experiments with fine tuning the eligibility criteria for the final selection of the segments from various

alternatives that are evaluated. After the user is done experimenting and decides on a final selection, it is the computer system that electronically implements the final selection made by the user. As such, it is respectfully submitted that Apte teaches that all the claimed steps being done by software, albeit some of them being executed after manual intervention.

(C) On pages 7-10 of Appellant's brief, Appellant argued the "actual premium" is the amount actually paid by the client for the insurance product and the "actual pure premium" describes the premium at which the expected claims payout actually does equal the premium charged, in reference to claims 1-20. The appellant further argues the cited passages of Apte clearly instruct the user to evaluate the estimated pure premium of that segment, not the segment itself. The Appellant additionally argues that the Examiner is actually relying upon "estimated pure premium" as being the "statistical constraint."

In response to Appellant's first argument, the Examiner respectfully submits that the cited passages given by Appellant clearly support the Examiner's position. First, Appellant cites col. 1, lines 30-34 of Apte as explaining the distinction between "actual pure premium" and "actual premium." The cited passages explicitly state that "one approach to ensure this is to estimate the "pure premium" of each policy holder (the premium at which their expected claim payout equals premium charged). If the average pure premium across an entire book of business is equal to or less than the actual premium that goes with the product, then the business is essentially operating at a safe level." It is respectfully submitted, that the cited passage does not suggest that "actual pure premium" describes the premium at which expected claims payout actually does equal the premium charged as claimed by Appellant. A fair reading of the cited

passage would suggest that an estimate of the pure premium (i.e., estimated pure premium) is compared to the actual premium. The cited passage by the Examiner states that "the end user can now examine each of these segments and their estimated pure premiums. For example, if the product's actual premium is $350, and segments that fall within the eligibility list and whose estimated pure premiums are significantly higher than this figure are candidates for exclusion from the product." (Apte; col. 4, lines 28-33). As such, the cited passage reaffirms that estimated pure premiums of segments are evaluated against an actual premium (i.e., statistical constraint) to select a final plurality of segments. As indicated by Appellant, the Examiner maintained that the cited passage of Apte clearly suggested the "statistical constraint" having a value of $350 and was not predicted but entered by the user as the desired quarterly premium (Apte; col. 4, lines 9-16 and 28-33)

It appears the confusion in the distinction between "actual pure premium" and "actual premium" comes from the Examiner's inadvertent mistake of stating the Examiner interprets the "actual pure premium" to be a statistical constraint. However, it is respectfully submitted, that as pointed out by Appellant on pages 8 and 13 of Appellant's brief, the cited passages by the Examiner in reference to all the independent claims of the present application use the term "actual premium" and not "actual pure premium." As such, it is respectfully submitted that lack of the term "actual pure premium" appearing in any of the cited passages and the Appellant's awareness of such a fact makes the inadvertent mistake harmless. Furthermore, as pointed out by Appellant on pages 8 and 13 of Appellant's brief, the Examiner has indicated throughout the record the Examiner has interpreted the variable that had a value of $350 as the "statistical

constraint." It is respectfully noted, that in Apte the only variable having such a value is the "actual premium."

In response to Appellant's argument that the cited passages of Apte clearly instruct the user to evaluate the estimated pure premium of that segment, not the segment itself, it is respectfully noted that the claim language at issue states "evaluating at least one generated segment to determine whether it satisfies one statistical constraint." As such, it is respectfully submitted that the claims do not indicate how the segments should be evaluated just that they should be evaluated. Therefore, the Examiner maintains that evaluated the estimated pure premium of a segment clearly reads on "evaluating at least one generated segment."

In response to Appellant's argument that the Examiner is actually relying upon estimated pure premium as being the statistical constraint rather than actual pure premium, it is respectfully submitted as shown above and incorporated herein, the Examiner has interpreted the actual premium having a value of $350 in the cited passage of Apte as the "statistical constraint."

(D) On pages 10-11 of Appellant's brief, Appellant argued that should the Examiner wish to maintain that one of ordinary skill in the art would interpret "actual pure premium" as a "statistical constraint", the Examiner would have to provide a reasonable reference supporting that allegation, in reference to claims 1-20.

In response, the Examiner respectfully first notes that the Appellant has not provided a specific definition of "statistical constraint" that is supported by Appellant's specification. Additionally as stated in MPEP § 2106, "any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so

understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998). If an applicant does not define a term in the specification, that term will be given its "common meaning." Paulsen, at 30 F. 3d 1480, 31 USPQ2d at 1674. If the applicant asserts that a term has a meaning that conflicts with the term's art-accepted meaning, Office personnel should encourage the applicant to amend the claim to better reflect what applicant intends to claim as the invention. If the application becomes a patent, it becomes prior art against subsequent applications. Therefore, it is important for later search purposes to have the patentee employ commonly accepted terminology, particularly for searching text-searchable databases."

As such, the Examiner maintains giving the term "statistical constraint" its common meaning, and, as such, Apte's actual premium clearly is a statistical constraint. As explained above and incorporated herein, Apte's actual premium has a value of $350 in the cited passage and therefore clearly is statistical in nature. Furthermore, a constraint is defined as the "state of being checked or restricted" (See definition of "constraint" Webster's dictionary 10th edition, page 248, attached at the end of the Examiner's Answer). As such, it is respectfully submitted that Apte's actual premium that is used to evaluate the generated segments and restrict which segments are included in the final plurality of segments, is clearly a constraint. Therefore, the Examiner maintains that Apte teaches a "statistical constraint."

(E) On pages 11-13 of Appellant's brief, Appellant argued that the Examiner has flatly rejected the interpretation of "the actual pure premium" to mean "the actual predicted value of the pure premium", in reference to claims 1-20.

In response, the Examiner respectfully notes that the Examiner first never cited col. 3, line 65 to col. 4, line 1 in its rejection of any of the independent claims. Therefore, the Examiner maintains as shown on Appellant's brief on pages 8 and 13, the Examiner was clearly referring to the term "actual premium" as the statistical constraint. As such, it is respectfully submitted the Examiner has not rejected any interpretation of the term "actual pure premium."

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Milan Kapadia

mk
April 2, 2004

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con·strain \kən-ˈstrān\ *vt* [ME, fr. MF *constraindre*, fr. L *constringere* to
constrict, constrain, fr. *com-* + *stringere* to draw tight — more at
STRAIN] (14c) **1 a** : to force by imposed stricture, restriction, or limita-
tion **b** : to restrict the motion of (a mechanical body) to a particular
mode **2** : COMPRESS; *also* : to clasp tightly **3** : to secure by or as if by
bonds : CONFINE; *broadly* : LIMIT **4** : to force or produce in an unnat-
ural or strained manner ⟨a ~*ed* smile⟩ **5** : to hold back by or as if by
force ⟨~*ing* my mind not to wander from the task —Charles Dickens⟩
syn see FORCE — **con·strained·ly** \-ˈstrā-nəd-lē, -ˈstrānd-lē\ *adv*
con·straint \kən-ˈstrānt\ *n* [ME, fr. MF *constrainte*, fr. *constraindre*]
(15c) **1 a** : the act of constraining **b** : the state of being checked, re-
stricted, or compelled to avoid or perform some action ⟨the ~ and
monotony of a monastic life —Matthew Arnold⟩ **c** : a constraining
condition, agency, or force : CHECK ⟨put legal ~*s* on the board's activ-
ities⟩ **2 a** : repression of one's own feelings, behavior, or actions **b** : a
sense of being constrained : EMBARRASSMENT
con·strict \kən-ˈstrikt\ *vb* [L *constrictus*, pp. of *constringere*] *vt* (1732) **1**
a : to make narrow or draw together **b** : COMPRESS, SQUEEZE ⟨~ a
nerve⟩ **2** : to stultify, stop, or cause to falter : INHIBIT ~ *vi* : to be-
come constricted *syn* see CONTRACT — **con·stric·tive** \-ˈstrik-tiv\ *adj*
con·stric·tion \-ˈstrik-shən\ *n* (15c) **1** : an act or product of constrict-
ing **2** : the quality or state of being constricted **3** : something that
constricts
con·stric·tor \-ˈstrik-tər\ *n* (1735) **1** : a muscle that contracts a cavity
or orifice or compresses an organ **2** : a snake (as a boa constrictor)
that kills prey by compression in its coils **3** : one that constricts
con·stringe \kən-ˈstrinj\ *vt* **con·stringed; con·string·ing** [L *constrin-
gere*] (1604) **1** : to cause to shrink ⟨cold ~*s* the pores⟩ **2** : CONSTRICT
— **con·strin·gent** \-ˈstrin-jənt\ *adj*
[1]**con·struct** \kən-ˈstrəkt\ *vt* [L *constructus*, pp. of *construere*, fr. *com-* +
struere to build — more at STRUCTURE] (1663) **1** : to make or form by
combining or arranging parts or elements : BUILD; *also* : CONTRIVE,
DEVISE **2** : to draw (a geometrical figure) with suitable instruments
and under specified conditions **3** : to set in logical order — **con-
struct·ible** \-ˈstrək-tə-bəl\ *adj* — **con·struc·tor** \-tər\ *n*
[2]**con·struct** \ˈkän-ˌstrəkt\ *n* (1933) **1** : something constructed by the
mind: as **a** : a theoretical entity ⟨the deductive study of abstract ~*s*
—Daniel J. Boorstin⟩ **b** : a working hypothesis or concept ⟨a point of
view which made "abroad" singularly containable as a literary ~
—Jonathan Raban⟩ **c** : a product of mental invention ⟨the novel . . . a
verbal ~ in which invented human characters appear —Anthony Bur-
gess⟩ **2** : something produced by human effort ⟨the East bloc was al-
ways an unnatural ~ —Walter Isaacson⟩
con·struc·tion \kən-ˈstrək-shən\ *n* (14c) **1** : the act or result of con-
struing, interpreting, or explaining **2 a** : the process, art, or manner of
constructing something; *also* : a thing constructed **b** : the construc-
tion industry ⟨working in ~⟩ **3** : the arrangement and connection of
words or groups of words in a sentence : syntactical arrangement **4** : a
sculpture that is put together out of separate pieces of often disparate
materials — **con·struc·tion·al** \-shnəl, -shə-nᵊl\ *adj* — **con·struc·tion-
al·ly** *adv*
con·struc·tion·ist \-sh(ə-)nist\ *n* (1838) : one who construes a legal doc-
ument (as the U.S. Constitution) in a specific way ⟨a strict ~⟩
construction paper *n* (ca. 1924) : a thick groundwood paper available
in many colors and used esp. for school artwork
con·struc·tive \kən-ˈstrək-tiv\ *adj* (ca. 1680) **1** : declared such by judi-
cial construction or interpretation ⟨~ fraud⟩ **2** : of or relating to con-
struction or creation **3** : promoting improvement or development ⟨~
criticism⟩ — **con·struc·tive·ly** *adv* — **con·struc·tive·ness** *n*
con·struc·tiv·ism \kən-ˈstrək-ti-ˌvi-zəm\ *n*, *often cap* (1925) : a nonob-
jective art movement originating in Russia and concerned with formal
organization of planes and expression of volume in terms of modern
industrial materials (as glass and plastic) — **con·struc·tiv·ist** \-vist\ *adj*
or n, often cap
[1]**con·strue** \kən-ˈstrü\ *vb* **con·strued; con·stru·ing** [ME, fr. LL *con-
struere*, fr. L, to construct] *vt* (14c) **1** : to analyze the arrangement and
connection of words in (a sentence or sentence part) **2** : to understand
or explain the sense or intention of usu. in a particular way or with re-
spect to a given set of circumstances ⟨*construed* my actions as hostile⟩
~ *vi* : to construe a sentence or sentence part esp. in connection with
translating — **con·stru·able** \-ˈstrü-ə-bəl\ *adj*
[2]**con·strue** \ˈkän-ˌstrü\ *n* (1844) : an act or the result of construing esp.
by piecemeal translation
con·sub·stan·tial \ˌkän(t)-səb-ˈstan(t)-shəl\ *adj* [LL *consubstantialis*, fr.
L *com-* + *substantia* substance] (14c) : of the same substance
con·sub·stan·ti·a·tion \ˌkän(t)-səb-ˌstan(t)-shē-ˈā-shən\ *n* (1597) : the
actual substantial presence and combination of the body and blood of
Christ with the eucharistic bread and wine according to a teaching as-
sociated with Martin Luther — compare TRANSUBSTANTIATION
con·sue·tude \ˈkän(t)-swi-ˌtüd, kən-ˈsü-ə-, -ˌtyüd\ *n* [ME, fr. L *consuetu-
do* — more at CUSTOM] (14c) : social usage : CUSTOM — **con·sue·tu·di-
nary** \ˌkän(t)-swi-ˈtü-də-ˌner-ē, kən-ˌsü-ə-, -ˈtyü-\ *adj*
con·sul \ˈkän(t)-səl\ *n* [ME, fr. L; perh. akin to L *consulere* to consult]
(14c) **1 a** : either of two annually elected chief magistrates of the Ro-
man republic **b** : one of three chief magistrates of the French republic
from 1799 to 1804 **2** : an official appointed by a government to reside
in a foreign country to represent the commercial interests of citizens of
the appointing country — **con·sul·ar** \-s(ə-)lər\ *adj* — **con·sul·ship**
\-səl-ˌship\ *n*
con·sul·ate \-s(ə-)lət\ *n* (14c) **1** : a government by consuls **2** : the of-
fice, term of office, or jurisdiction of a consul **3** : the residence or of-
ficial premises of a consul
consulate general *n, pl* **consulates general** (1883) : the residence, of-
fice, or jurisdiction of a consul general
consul general *n, pl* **consuls general** (1753) : a consul of the first rank
stationed in an important place or having jurisdiction in several places
or over several consuls
[1]**con·sult** \kən-ˈsəlt\ *vb* [MF or L; MF *consulter*, fr. L *consultare*, freq. of
consulere to deliberate, counsel, consult] *vt* (1527) **1** : to have regard to
: CONSIDER **2 a** : to ask the advice or opinion of ⟨~ a doctor⟩ **b** : to
refer to ⟨~ a dictionary⟩ ~ *vi* **1** : to consult an individual **2** : to de-
liberate together : CONFER **3** : to serve as a consultant — **con·sult·er**
n

[2]**con·sult** \kən-ˈsəlt, ˈkän-ˌ\ *n* (1560) : CONSULTATION
con·sul·tan·cy \kən-ˈsəl-tᵊn(t)-sē\ *n, pl* **-cies** (1955)
2 : an agency that provides consulting services **3**
consultant
con·sul·tant \kən-ˈsəl-tᵊnt\ *n* (1697) **1** : one who con
: one who gives professional advice or services : EXP
tant·ship \-ˌship\ *n*
con·sul·ta·tion \ˌkän(t)-səl-ˈtā-shən\ *n* (15c) **1** : CO
ENCE; *specif* : a deliberation between physicians on a
ment **2** : the act of consulting or conferring
con·sul·ta·tive \kən-ˈsəl-tə-tiv, ˈkän(t)-səl-ˌtā-tiv\ *adj*
ing to, or intended for consultation : ADVISORY ⟨~
con·sult·ing \kən-ˈsəl-tiŋ\ *adj* (1801) **1** : providing pro
pert advice ⟨a ~ architect⟩ **2** : of or relating to cons
sultant ⟨the ~ room of a psychiatrist⟩
con·sul·tive \kən-ˈsəl-tiv\ *adj* (1616) : CONSULTATIVE
con·sul·tor \kən-ˈsəl-tər\ *n* (1611) : one that consults
adviser to a Roman Catholic bishop, provincial, or
[1]**con·sum·able** \kən-ˈsü-mə-bəl\ *adj* (1641) : capable of
[2]**consumable** *n* (1802) : something (as food or fuel)
— usu. used in pl.
con·sume \kən-ˈsüm\ *vb* **con·sumed; con·sum·ing** [ME
MF *consumer*, fr. L *consumere*, fr. *com-* + *sumere* to
sub- up + *emere* to take — more at SUB-, REDEEM]
away with completely : DESTROY ⟨fire *consumed*
a : to spend wastefully : SQUANDER **b** : USE UP
much of his time⟩ **3** : to eat or drink esp. in great
several kegs of beer⟩ **4** : to engage fully : ENGRO
curiosity⟩ ~ *vi* **1** : to waste or burn away : PERISH
nomic goods
con·sum·ed·ly \-ˈsü-məd-lē\ *adv* (1707) : as if consu
con·sum·er \kən-ˈsü-mər\ *n, often attrib* (15c) : one
a : one that utilizes economic goods **b** : an organ
plex organic compounds for food which it obtains
organisms or by eating particles of organic matte
DUCER 4 — **con·sum·er·ship** \-ˌship\ *n*
consumer credit *n* (1927) : credit granted to an
nance the purchase of consumer goods or to defray
consumer goods *n pl* (1890) : goods that directly
con·sum·er·ism \kən-ˈsü-mə-ˌri-zəm\ *n* (1944) **1**
consumer's interests **2** : the theory that an increa
goods is economically desirable; *also* : a preoccup
clination toward the buying of consumer goods
\-rist\ *n* — **con·sum·er·is·tic** \kən-ˌsü-mə-ˈris-tik\
consumer price index *n* (1948) : an index measuri
cost of typical wage-earner purchases of goods and
as a percentage of the cost of these same goods
base period — called also *cost-of-living index*
con·sum·ing \kən-ˈsü-miŋ\ *adj* (1920) : deeply fe
terest⟩; *also* : ENGROSSING
[1]**con·sum·mate** \ˈkän(t)-sə-mət, kən-ˈsə-mət\ *adj*
filled, fr. L *consummatus*, pp. of *consummare* to sum
+ *summa* sum] (1527) **1** : complete in every detail
tremely skilled and accomplished ⟨a ~ liar⟩ **3**
⟨~ skill⟩ ⟨~ cruelty⟩ — **con·sum·mate·ly** *adv*
[2]**con·sum·mate** \ˈkän(t)-sə-ˌmāt\ *vb* **-mat·ed;**
: FINISH, COMPLETE ⟨~ a business deal⟩ **b**
: ACHIEVE **2** : to make (marital union) complete
⟨~ a marriage⟩ ~ *vi* : to become perfected
\ˈkän(t)-sə-ˌmā-tiv, kən-ˈsə-mə-tiv\ *adj* — **con**
ˌmāt-ər\ *n*
con·sum·ma·tion \ˌkän-sə-ˈmā-shən\ *n* (14c) **1**
ing ⟨the ~ of a contract by mutual signature⟩
ing of a marriage **2** : the ultimate end : FINISH
con·sum·ma·to·ry \kən-ˈsə-mə-ˌtōr-ē, -ˌtȯr-\ *adj*
ing to consummation : CONCLUDING **2** : of, re
sponse or act (as eating or copulating) that ter
goal-directed behavior
con·sump·tion \kən-ˈsəm(p)-shən\ *n* [ME
consumption-, *consumptio*, fr. *consumere*] (14c)
wasting away of the body esp. from pulmonary
BERCULOSIS **2** : the act or process of consumi
economic goods in the satisfaction of wants
duction resulting chiefly in their destruction
formation
[1]**con·sump·tive** \-ˈsəm(p)-tiv\ *adj* (1664) **1**
: of, relating to, or affected with consumption
[2]**consumptive** *n* (1666) : a person affected with
[1]**con·tact** \ˈkän-ˌtakt\ *n* [F or L; F, fr. L *contact*
contact with — more at CONTINGENT] (1626)
of surfaces **b** : the apparent touching or mutu
of two celestial bodies or of the disk of one bo
another during an eclipse, transit, or occultation
of two electrical conductors through which
special part made for such a junction **2 a** :
SHIP **b** : CONNECTION, COMMUNICATION
munication with someone or an observing or
signal from a person or object ⟨radar ~ with
ing as a go-between, messenger, connection,
mation ⟨business ~*s*⟩ **4** : CONTACT LENS
[2]**con·tact** \ˈkän-ˌtakt, kən-ˈ\ *vi* (1834) : to
bring into contact **2 a** : to enter or be in conta
in communication with ⟨~ your local dealer⟩
usage The use of *contact* as a verb, esp. in
dard by almost all commentators except
handbooks.
[3]**con·tact** \ˈkän-ˌtakt\ *adj* (1859) : maintaining
or caused by contact ⟨~ poisons⟩ ⟨~ sports
contact binary *n* (1952) : a binary star system
close enough together for material to pass be
contact hitter *n* (1982) : a hitter in baseball who
contact inhibition *n* (1965) : cessation of
ments upon contact with other cells with
cell growth and division